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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,592	01/26/2004	Michael A. Weisse	67,097-038/EH10891	1725
26096	7590	06/08/2005	EXAMINER	
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			NGUYEN, NINH H	
			ART UNIT	PAPER NUMBER
			3745	

DATE MAILED: 06/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SA

# Office Action Summary

Application No.

10/765,592

Applicant(s)

WEISSE ET AL.

Examiner

Ninh H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-19 is/are allowed.
- 6) ☒ Claim(s) 1-7, 11-16 and 20 is/are rejected.
- 7) ☒ Claim(s) 8-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 02/17/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 3 is objected to because of the following informalities: the claim should be dependent on claim 2 to avoid lack of antecedent basis for the limitation "the cavity" on line 1 of the claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 13 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 13, there is a lack of antecedent basis for the limitation "the plurality of ribs" on line 1 of the claim. It is assumed that "the plurality of ribs" comprises a first rib and a second rib as recited in claim 1.

Regarding claim 16, the claim is incomplete.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 1-7, 11, 12, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Jacala et al. (5,536,143).

Jacala discloses a turbine blade (Fig. 9) comprising a substrate having a root edge and an opposite tip space radially outward from the root, the substrate further including a leading edge opposite a trailing edge, the leading edge spaced chordwise from the trailing edge; a first rib (with free ends pointing to the blade tip) and a second rib formed on the substrate, the first rib including a flared end;

wherein the blade further including an elongated, continuous cavity 112 between the first rib and the second rib, the first rib substantially parallel to the second rib (Fig. 9);

wherein the cavity extends continuously along a first path adjacent the first rib and then around the flared end (Fig. 9);

wherein the cavity extends continuously from the flared end along a second path between the first rib and the second rib (Fig. 9);

wherein the cavity extends continuously around an end of the second rib (Fig. 9);

wherein the flared end is a portion of increased thickness (Fig. 9);

wherein the blade further comprising a plurality of the first ribs (pointing to the blade tip) alternating with a plurality of the second ribs (pointing to the blade root) and wherein the cavity extends continuously in a serpentine path around each flared end of each of the plurality of first ribs and around an end of each of the plurality of second ribs (Fig. 9);

wherein the plurality of first ribs and the plurality of second ribs do not intersect one another (Fig. 9);

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wherein the plurality of first ribs and plurality of second ribs are each free standing, such that they do not intersect any other ribs (Fig. 9).

6. Claims 1, 6, and 13-15 rejected under 35 U.S.C. 102(b) as being anticipated by Shimotory et al. (JP 358148201A).

Shimotory discloses a turbine blade (Figs. 1-7) comprising a substrate having a root edge and an opposite tip space radially outward from the root, the substrate further including a leading edge opposite a trailing edge, the leading edge spaced chordwise from the trailing edge (Fig. 1); a first rib and a second rib formed on the substrate (Fig. 7), the first rib including a flared end;

wherein the flared end is a portion of increased thickness (Fig. 7);

wherein the first and second ribs are parallel in a region adjacent the root edge (Fig. 7);

and

wherein Shimotory further discloses a turbine blade including a pair of joined hollow blade halves wherein ribs in one of the pair of hollow blade halves are joined to corresponding ribs in the other of the pair.

***Allowable Subject Matter***

7. Claims 17-19, due to the method step of “machining a continuous cavity on a first substrate around a first rib, wherein the continuous cavity following a path around a flared end of the first rib”, are allowed.

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8. Claims 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Prior Art***

The prior art made of record but not relied upon is considered pertinent to applicant's disclosure and consists of 1 patent.

Craig et al. is cited to show a turbine blade comprises blade halves each having a rib with a flared end.

### ***Contact Information***

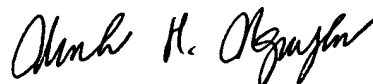
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Ninh Nguyen whose telephone number is (571) 272-4823. The examiner can be normally reached on Monday-Friday from 7:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached at (571) 272-4820. The fax number for this group is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, please go to <http://pair-direct.uspto.gov> or contact the Electronic Business center (EBC) at 866-217-9197 (toll-free).



**NINH H. NGUYEN**  
**PRIMARY EXAMINER**

Nhn

June 1, 2005